

904-M-057 PEA GRAVEL

(Adopted 11-19-20)

The Standard Specifications are revised as follows:

SECTION 601, BEGIN LINE 32, DELETE AND INSERT AS FOLLOWS:

Barrels used in impact attenuators shall be yellow with black lids. The *coarse* aggregate used in the barrels shall be ~~uncrushed gravel~~ *size 93PG*, class F or higher, in accordance with 904 and the following gradation requirements.

Sieve Size	% Passing
1/2 in. (12.5 mm)	100
No. 50 (300 μ m)	0-5
No. 100 (150 μ m)	0-2

All other impact attenuators shall have end reflectorization as shown on the plans or attached to the nose of the attenuator in accordance with the attenuator manufacturer's recommendation.

SECTION 601, AFTER LINE 259, INSERT AS FOLLOWS:

Aggregate used to fill gravel barrel impact attenuators will not be measured for payment.

SECTION 601, BEGIN LINE 353, INSERT AS FOLLOWS:

The cost of earthwork, grading, and transition panel if required, and PCC pad shall be included in the cost of *the* impact attenuator. *The cost of aggregate used to fill gravel barrel impact attenuators shall be included in the cost of the impact attenuator.*

SECTION 904, BEGIN LINE 274, INSERT AS FOLLOWS:

(e) Sizes of Coarse Aggregates

Sieve Sizes	Coarse Aggregate Sizes (Percent Passing)											
	Coarse Graded									Dense Graded		
	2	5	8	9	11, SC 11 ⁽⁵⁾	12, SC 12 ⁽⁵⁾	SC 16 ⁽⁵⁾	43 ⁽¹⁾	91	93PG ⁽⁶⁾	53 ⁽¹⁾	73 ⁽¹⁾
4 in. (100 mm)												
3 1/2 in. (90 mm)												
2 1/2 in. (63 mm)	100											
2 in. (50 mm)	80 - 100											
1 1/2 in. (37.5 mm)		100						100			100	
1 in. (25 mm)	0 - 25	85 - 98	100					70 - 90	100		80 - 100	100
3/4 in. (19 mm)	0 - 10	60 - 85	75 - 95	100				50 - 70			70 - 90	90 - 100
1/2 in. (12.5 mm)	0 - 7	30 - 60	40 - 70	60 - 85	100	100	100	35 - 50		98 - 100	55 - 80	60 - 90
3/8 in. (9.5 mm)		15 - 45	20 - 50	30 - 60	75 - 95	95 - 100	94 - 100			75 - 100		
No. 4 (4.75 mm)		0 - 15	0 - 15	0 - 15	10 - 30	50 - 80	15 - 45	20 - 40		10 - 60	35 - 60	35 - 60
No. 8 (2.36 mm)		0 - 10	0 - 10	0 - 10	0 - 10	0 - 35		15 - 35		0 - 15	25 - 50	
No. 16 (1.18 mm)							0 - 4					
No. 30 (600 µm)							0 - 4	5 - 20		0 - 5	12 - 30	12 - 30
No. 200 (75 µm) ⁽²⁾								0 - 6.0			5.0 - 10.0 ⁽⁴⁾	5.0 - 12.0
Decant (PCC) ⁽³⁾		0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5			0 - 1.5			
Decant (Non-PCC)	0 - 2.5	0 - 2.5	0 - 3.0	0 - 2.5	0 - 2.5	0 - 2.0			0 - 2.5	0 - 2.0		
Decant (SC)					0 - 1.5	0 - 1.5	0 - 1.5					
Notes:	<p>⁽¹⁾ The liquid limit shall not exceed 25 (35 if slag) and the plasticity index shall not exceed 5. The liquid limit shall be determined in accordance with AASHTO T 89 and the plasticity index in accordance with AASHTO T 90.</p> <p>⁽²⁾ Includes the total amount passing the No. 200 (75 µm) sieve as determined by AASHTO T 11 and AASHTO T 27.</p> <p>⁽³⁾ Decant may be 0 - 2.5 for stone and slag.</p> <p>⁽⁴⁾ When slag is used for separation layers as defined in 302.01, the total amount passing the No. 200 (75 µm) sieve shall be 10.0 to 12.0.</p> <p>⁽⁵⁾ Seal coat (SC) aggregates shall be 85% one face and 80% two face crushed. The Flakiness Index in accordance with ITM 224 shall be a maximum of 25%.</p> <p>⁽⁶⁾ Pea gravel shall be generally uncrushed gravel, with a maximum of 20% crushed particles, and shall meet the gradation requirements of 93PG. Determination of crushed particles shall be made from the weight (mass) of material retained on the No. 4 (4.75 mm) sieve in accordance with ASTM D5821.</p>											